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BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

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Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before you today. The Energy Information Administration (EIA) is the independent statistical and analytical agency within the Department of Energy. We are charged with providing objective, timely and relevant data, analyses, and projections for the Congress, the Administration, and the public. While we do not take positions on policy issues, our work can assist energy policymakers in their deliberations. Because we have an element of statutory independence with respect to our activities, our views are strictly those of EIA and should not be construed as representing those of the Department of Energy or the Administration. Today, I will focus on EIA's recent short-term projections for petroleum and gasoline prices and discuss the factors contributing to high prices and continued uncertainty in these markets.

Global oil markets have tightened sharply since the beginning of the year, both for crude oil and light petroleum products, especially gasoline and distillate fuel. Commercial oil inventories have dropped considerably since the end of September, reflecting strong oil demand, production cuts by Organization of Petroleum Exporting Countries (OPEC) members, and only modest increases in non-OPEC production. Increasing global demand for light products has put significant pressure on refining capacity in the United States and elsewhere. Given these conditions of increasing demand without commensurate increases in supply, prices have been increasing and will remain highly sensitive to actual or anticipated risks, such as geopolitical events, whose probabilities are often very difficult to quantify.

EIA released its *Short-Term Energy Outlook* on May 8 and we project average West Texas Intermediate (WTI) crude oil prices of about $66 per barrel this summer compared with over

$70 per barrel last summer**.** We are also projecting that WTI prices will average about $64 per barrel annually in both 2007 and 2008. In recent months, however, movements in benchmark WTI prices have not provided an accurate gauge of overall oil market developments. An alternative price—Brent crude oil—increased from $50 per barrel in mid-January to $69 per barrel by early April. As of early May, the Brent crude had dropped back into the mid-$60s.

Retail, regular grade, gasoline prices have increased from $2.17 per gallon at the end of January to $3.05 per gallon on May 7, compared with the $2.84 per-gallon-average of last summer. U.S. regular motor gasoline prices are projected to average $2.95 per gallon this summer, with a peak monthly average of $3.01 in May and again in August . However, prices vary significantly by region: for example, EIA's data for May 7 show an average price of $2.87 per gallon in the Gulf Coast region and $3.37 in the West Coast region. California has customarily experienced the highest prices in the United States due to several factors, including stricter environmental standards, which mandate a more expensive form of gasoline, and the relative isolation of West Coast markets from other supply sources. On the other hand, States in the Gulf Coast region are reporting among the lowest prices in the country due to their proximity to oil fields and refineries.

Recent gasoline price developments reflect both changes in oil markets and factors specific to gasoline markets, as outlined in the following two sections of my testimony.

Oil Markets

World oil markets are projected to remain tight, sustaining high crude prices this summer as well as for the next several years due to continued growth in oil demand, little growth in non-OPEC supply, and continued production restraint by OPEC members. OPEC's production cuts, in combination with a growing demand for oil that is exceeding the growth in non-OPEC supplies, have reduced Organization for Economic Cooperation and Development (OECD) commercial oil inventories from their historically high levels to levels in the middle of the normal range. EIA estimates that OECD inventories declined by 1.1 million barrels per day in the first quarter of 2007 (compared with an average inventory draw over the past 5 years of 0.3 million barrels per day for that quarter). Forward cover (the number of days that inventory can cover projected consumption) is expected to decrease to the low end of the normal range by the end of 2007 **(Figure 1).**

Despite the recent increases in world oil prices, global oil consumption is projected to grow by 1.4 million barrels per day in 2007 and by 1.6 million barrels per day in 2008. About one-half of the projected growth is in China and the United States. Preliminary first-quarter 2007 data indicate that U.S. consumption rose by over 500,000 barrels per day, of which 160,000 barrels per day was gasoline, and Chinese consumption rose by about 400,000 barrels per day, relative to first-quarter 2006 levels. Colder weather relative to last year and robust personal disposable income growth were both major contributors to higher U.S. demand. Double-digit economic growth continues to drive Chinese oil demand growth.

Non-OPEC production increases are projected at roughly half of the global demand growth, with production (excluding Angola) rising by roughly 0.8 million barrels per day in both

2007 and 2008. Output growth from non-OPEC countries reflects strong gains from new projects in the Caspian Sea, Sakhalin Island in far-eastern Russia, Africa, Brazil, and the United States (**Figure 2**). However, declining production from mature basins in the North Sea, the Middle East, Mexico, and Russia will offset the growth potential from these new projects. If these projections for demand and non-OPEC production materialize, demand for OPEC oil will rise accordingly.

From the third quarter of 2006 to the first quarter of 2007, OPEC members cut crude oil production by 1.1 million barrels per day to reduce the buildup in global oil stocks. In the coming months, OPEC members will need to consider accommodating rising demand for their oil, especially the demand for seasonal stock building, to maintain inventories in the middle of the 5-year average range. Our estimates for OPEC crude oil production (including Angola) suggest an increase of 1.6 million barrels per day by the fourth quarter of 2007 (compared with first-quarter 2007 levels) would be required to hold inventories to such levels. The largest increase could occur in Saudi Arabia, which is expected to increase total production by almost 250,000 barrels per day. If the majority of the current shut-in capacity in Nigeria of up to 800,000 barrels per day is brought back online, Nigeria could be producing as much as 2.7 million barrels per day by December 2007. However, ongoing unrest in the Niger delta will continue to hinder the return of that production capacity.

Even though new crude oil production capacity increases are projected during the next 2 years in OPEC countries (particularly in the Persian Gulf), continued strong global demand growth and the need for a seasonal inventory build will limit OPEC's spare capacity growth. On balance, EIA expects OPEC spare capacity to average 2.5 million barrels per day in 2007 and 2.8 million barrels per day in 2008 compared with an average spare capacity of 1.3

million barrels per day in 2006**.** However, recent increases in spare capacity levels due to reduced production have come at the expense of reduced forward supply cover.

Against the background of already tight world markets, global geopolitical uncertainties can create real or perceived threats to global oil supplies and transport. Events can also create spillover effects on neighboring countries. Geopolitical uncertainty in a number of different countries in the Middle East and Western Africa has kept and will continue to keep the market on edge. For example, Nigeria's problems have aggravated the gasoline price situation because the country produces largely light and sweet crude oil, which is used by the world's refineries to produce products such as gasoline.

The lack of timely demand data, especially in emerging markets in the Middle East, Africa, and Asia, may also lead OPEC and other major oil producers to misread prevalent market conditions. OPEC members have not yet raised production levels to meet higher demand for their crude oil this summer, including normal stock building. These factors create imbalances in the market, increase market volatility, and cause upward pressure on energy prices.

U.S. Gasoline Markets

The recent rise in crude oil prices, coupled with tight gasoline markets as evidenced by inventories rapidly falling to very low levels (**Figure 3**), is expected to push average U.S. regular grade motor gasoline prices from an average of $2.24 per gallon in January to an average of $3.01 per gallon in May. EIA expects gasoline prices could then ease slightly in upcoming months before returning to May's levels again by the end of the summer. With

refinery production expected to improve during the rest of the May and import volumes increasing over the last few weeks, gasoline markets may ease somewhat causing gasoline prices to recede from their current high levels. However, with the hurricane season approaching, continued tight refinery conditions--both in the United States and elsewhere--low gasoline inventories, and increased demand for summer travel, upward pressure on gasoline prices will remain in force. As a result, the average price of gasoline for the summer driving season (April through September) is projected to be $2.95 per gallon, up 11 cents per gallon from last summer's average.

Gasoline inventories, which typically build slightly in April, sharply declined last month because of the high incidence of refinery outages and low imports. Total motor gasoline inventories at the end of April were estimated to be 193 million barrels, more than 14 million barrels less than last April and 12 million barrels less than the lower end of the typical range for this time of year. Gasoline inventories are expected to remain tight throughout the summer, which will keep pressure on gasoline prices and likely result in higher margins and retail prices than those seen last summer.

Gasoline supply has been affected more than usual by refinery outages this spring. U.S. refineries typically have high outages during the first quarter, reducing production of gasoline and other products. This year, outages have extended into May and, along with low imports and seasonally rising gasoline demand, contributed to the sharp inventory decline and price pressure in April,. While accurate statistics on refinery outages are scarce, preliminary refinery inputs in April were about 300 thousand barrels per day lower than the average level for the period 2003 through 2005. (Last year's numbers reflect unusual hurricane-damaged refinery outages.) During April, EIA estimated that domestic

refinery outages may have reduced gasoline production by 150 thousand barrels per day over average outages for that period. Refinery throughputs have just begun to show the seasonal increase typical at this time and are expected to increase over the next several months, which should ease pressure on gasoline prices. Should large refinery shutdowns or curtailments occur this summer, gasoline prices could rise well beyond our current forecast, especially given that U.S. inventories (the immediate source of incremental supplies) are already low.

Gasoline imports, critical to meeting U.S. consumption needs, are lagging last year's level and, thus, also affecting prices**.** Gasoline imports are an important source of supply to the United States in the months leading up to the peak summer season, when they contribute to a seasonal build in inventories before demand peaks, as well as during the summer months. However, in the 10-week period ending April 6, total gasoline imports averaged 920,000 barrels per day, down 220,000 barrels per day compared to the same period last year.

Low gasoline inventories in Europe have resulted in limited volumes available for export to the United States. At the same time, refinery problems in Venezuela have reduced its gasoline exports to the United States by 40 percent, from an average of 75 thousand barrels per day in January through September 2006 to 44 thousand barrels per day in October 2006 through February 2007. In addition, disruptions to refinery activity in Nigeria have caused that country to seek additional gasoline supplies in the world market, thus adding to the global competition for scarce gasoline supplies. Total U.S. gasoline imports have recently returned to around 1.2 million barrels per day. Imports at or above that level are likely to be needed to avoid persistent pressure on gasoline prices.

Prices not only respond to uncertainties in crude supplies, refining, and import availability, but also to weather, particularly the threat of hurricanes, which presents a major uncertainty in petroleum (and natural gas) market forecasts. Shut-in production from hurricane activity is difficult to predict because the severity of tropical weather and the associated impacts on production have fluctuated widely from year to year. For example, no production was shut-in during 2006 as a result of tropical weather disturbances, in contrast to the devastation caused by Hurricanes Katrina and Rita in 2005. For the 30 years prior to 2005, hurricanes caused a seasonal average of about 4.5 million barrels of cumulative shut-in crude oil production, which is well below the estimated 165 million barrels that was shut-in after Hurricanes Katrina and Rita. Our short-term projections account for the normal seasonality of crude oil production, which reflects, in part, temporary shut-ins resulting from hurricanes. Our current projection of domestic crude oil production in the third quarter 2007 is about 70,000 barrels per day lower than the projected average production rates in the second and fourth quarters, or more than 6 million barrels total for the third quarter. However, should hurricane damage to petroleum infrastructure (upstream and/or downstream) exceed our base case assumption, crude oil and gasoline prices would be expected to increase substantially.

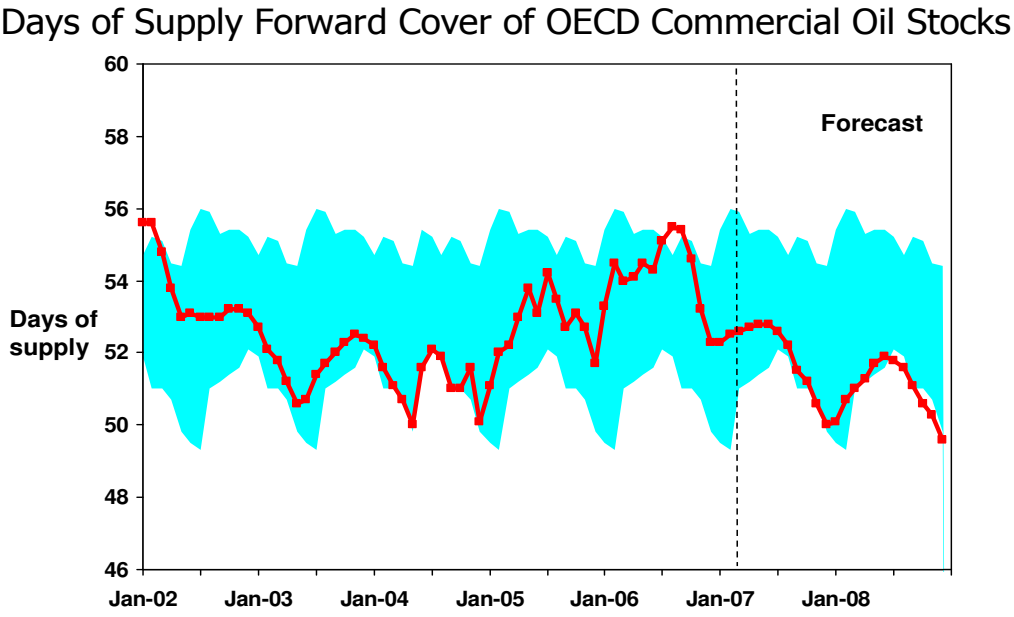
Conclusion

The combination of tight crude oil and refining markets, along with ongoing geopolitical concerns, leaves crude oil and gasoline markets poised for continued volatility this summer. However, with refinery production expected to improve during the rest of the May and import volumes increasing over the last few weeks, gasoline markets may ease somewhat causing gasoline prices to recede from their current high levels. However, with the hurricane season approaching, continued tight refinery conditions--both in the United States and

elsewhere--low gasoline inventories, and increased demand for summer travel, upward pressure on gasoline prices will remain in force.

This concludes my testimony, Mr. Chairman. I would be pleased to answer any questions you and other Members may have.

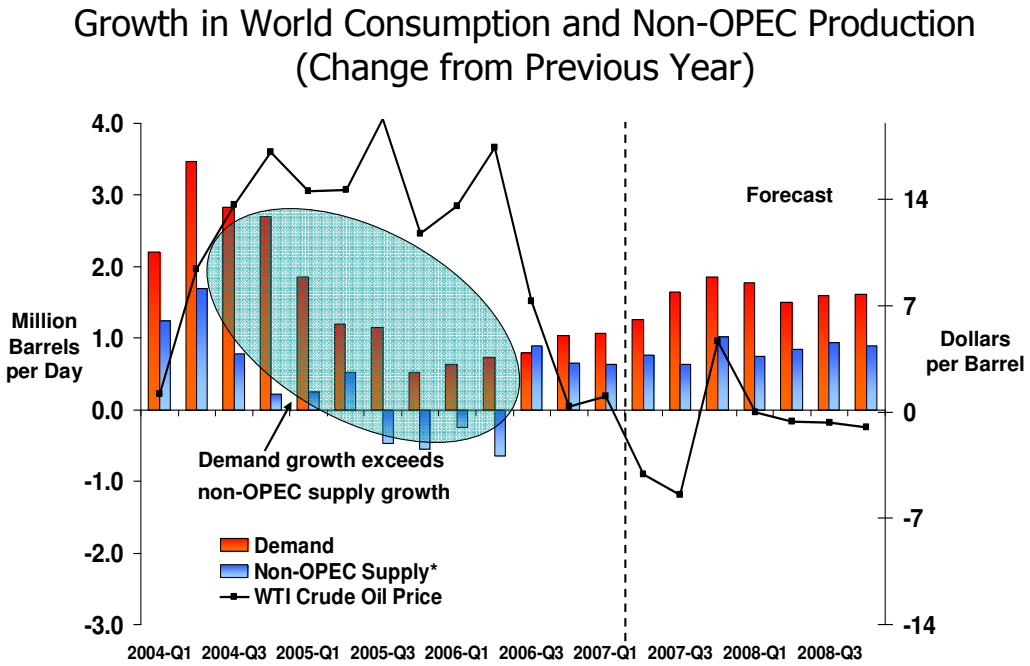
Figure 1



NOTE: Colored bands represent 5-year minimum/maximum ranges for Jan. 2002 - Dec. 2006.

Short-Term Energy Outlook, May 2007

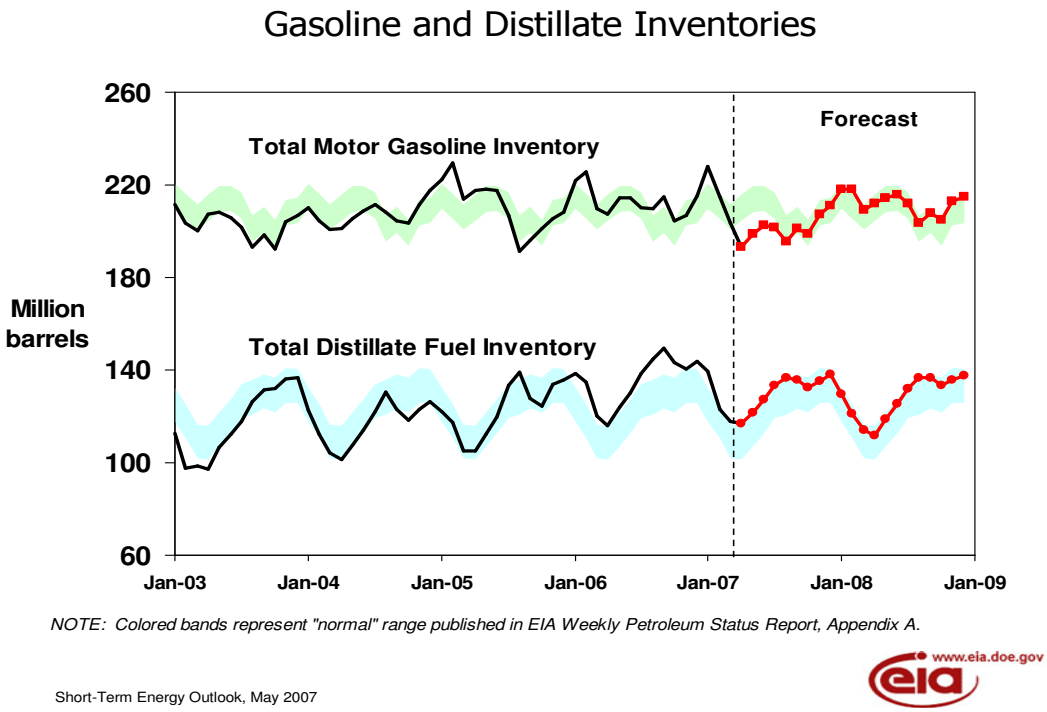
Figure 2



*Includes OPEC non-crude production, MMBD= million barrels per day

Short-Term Energy Outlook, May 2007

Figure 3



NOTE: Colored bands represent "normal" range published in EIA Weekly Petroleum Status Report, Appendix A.

Short-Term Energy Outlook, May 2007

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